

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-3. (Canceled)

4. (Previously Presented) A digital camera, comprising:

an image sensor having a plurality of two dimensionally arranged pixels on which electric charge is accumulated to generate signals, respectively, capable of selectively reading out the signals from desired pixels; and

a processor for light metering read signals of given pixels located in a given area narrower than the whole imaging area of the image sensor, and including a timer for determining a time length from a start of the accumulation of charge to a time when a signal from the image sensor reaches a predetermined level, the light metering being on the basis of the time length.

5. (Previously Presented) The digital camera according to claim 4, wherein the image sensor is further capable of adding signals of at least two pixels prior to getting the outputs from the image sensor, and wherein the timer determines a time length from a start of the accumulation of charge to a time when the added signal reaches a predetermined level.

6. (Previously Presented) The digital camera according to claim 5, wherein the processor for light metering further comprises an output reader for repeating to get the outputs from the pixels in accordance with a predetermined timetable, and a comparator for comparing the signal with the predetermined level, and wherein the timer determines a time length from a start of the accumulation of charge to a time when the comparator informs that the added signal reaches the predetermined level.

7. (Original) The digital camera according to claim 6, wherein the predetermined level corresponds to the optimum exposure level of the camera.

8. (Original) The digital camera according to claim 6, wherein the output reader repeats to get the outputs from the pixels with the charge accumulation continued without being reset during the period in which the timer is determining the time.

9. (Original) The digital camera according to claim 6, wherein an interval between the repetition of getting the output by the output reader is changeable among pixels.

10. (Original) The digital camera according to claim 9, wherein the output reader gives priority to a pixel of the shorter interval in getting the output.

11. (Original) The digital camera according to claim 9, wherein the signals from pixels of the same interval are added prior to getting the outputs from the pixels.

12. (Original) The digital camera according to claim 6, wherein an interval between the repetition of getting the output by the output reader is variable for changing a range of light metering.

13. (Original) The digital camera according to claim 6, further comprising an aperture through which the image sensor receives light, wherein the aperture is variable for changing a range of light metering.

14. (Original) The digital camera according to claim 4, further comprising a focus detector for processing the signal of the image sensor to detect the focusing condition of the camera.

15. (Original) The digital camera according to claim 14, wherein the focus detector processes the outputs from the individuals of the pixels of the image sensor to form a digital image to be investigated in the focus direction.

16. (Original) The digital camera according to claim 14, wherein a range covering the pixels participating in the focus detection differs from that in the light metering.

17. (Previously Presented) The digital camera according to claim 14, wherein the image sensor is reset after the time length relating to the light metering to accumulate charge for the same period as the time length to get signals for the focus detection.

18. (Previously Presented) The digital camera according to claim 17, wherein the image sensor is reset after the focus detection to accumulate charge for the time length calculated from light metering calculation to get signals for forming a picture image of an object of the camera.

19. (Original) The digital camera according to claim 14, wherein the image sensor is further capable of adding signals of at least two pixels prior to getting the outputs from the image sensor, and wherein the focus detector processing the added signals when the light metering informs an insufficient brightness of an object in terms of the focus detection.

20. (Original) The digital camera according to claim 19, wherein the addition means the simple addition of signals from more than two pixels adjacent with each other.

21. (Original) The digital camera according to claim 19, wherein the addition means the moving addition of signals from more than two pixels adjacent with each in which the pixel is shifted by one on every addition.

22. (Original) The digital camera according to claim 14, further comprising a white balance calculator for processing the signal obtainable from the image sensor without resetting the image sensor after the focus detection.

23. (Original) The digital camera according to claim 22, wherein the image sensor is further capable of adding signals of at least two pixels prior to getting the outputs from the image sensor, and wherein the white balance calculator processes the added signal.

24. (Original) The digital camera according to claim 14, further comprising picture image processor for processing the signals from the image sensor to form a picture image of an object of the camera and a white balance calculator for processing the signal

obtainable from the image sensor without resetting the charge accumulated on the image sensor for the picture image.

25. (Original) The digital camera according to claim 14, further comprising a memory for storing the signals from the image sensor to form a picture image of an object of the camera and a white balance calculator for processing the signals stored in the memory.

26. (Original) A digital camera according to claim 4, wherein after accumulation of charge for light metering, the calculation for white balance is performed, and the output of the pixels is got from the image sensor for focus detection.

27. (Original) The digital camera according to claim 14, wherein the focus detector includes an optical system for forming an image of an object on the image sensor, a pair of apertures for dividing light flux of the optical system and filters each arranged across the divided light fluxes passing through the pair of apertures, respectively.

28. (Original) The digital camera according to claim 27, wherein the image sensor is of a color image sensor having red, green and blue pixels and wherein the filters arranged across the divided light fluxes are of green and magenta filters, respectively.

29. (Previously Presented) The digital camera according to claim 27, wherein the image sensor receives light through the pair of apertures on light metering.

30. (Original) The digital camera according to claim 29, further comprising another aperture through which the image sensor receives light, wherein the pair of apertures are replaced by the another aperture for changing a range of light metering.

31-44. (Canceled)

45. (Currently Amended) A digital camera comprising:  
an image sensor having a plurality of two-dimensionally arranged pixels  
capable of selectively reading out signals from desired pixels for the purpose of at least two of

the processes for light metering, focus detection, white balance calculation and picture image forming for recording; and

an output reader for getting the outputs from the pixels for the purpose of at least two processes, after signals of the pixels are output for a first process, by outputting signals of the pixels continuously formed without being reset for the purpose of at least a second process reading out an output signal to cause signals of the pixels being continuously formed to be output once again from the image sensor for the purpose of at least a second process without resetting the image sensor after signals of the pixels for a first process are output from the image sensor.

46. (Currently Amended) A digital camera comprising:

an image sensor having a plurality of two dimensionally arranged pixels capable of selectively reading out signals from desired pixels for the purpose of at least two of the processes for light metering, focus detection, white balance calculation and picture image forming for recording; the image sensor having a plurality of amplifiers built in the image sensor of variable gain for amplifying the signals of the pixels, respectively; and

a gain controller for changing the gain between at least the two processes.

47. (Canceled)

48. (Currently Amended) A digital camera comprising:

an image sensor having a plurality of two dimensionally arranged pixels capable of selectively reading out signals from desired pixels for the purpose of at least two of the processes for light metering, focus detection, white balance calculation and picture image forming for recording, and wherein, in response to completion of an output of a certain signal from the image sensor, a signal for implementing another process is output in parallel with immediate process of the signal one process is started in response to completion of outputting the signals for another process.

49. (Currently Amended) A digital camera comprising:

an image sensor having a plurality of two-dimensionally arranged pixels capable of selectively reading out signals from desired pixels and capable of adding signals of at least two pixels prior to getting the output from the image sensor;

a first processor for processing outputs from individual pixels of the image sensor to form a picture image for recording of an object of the camera; and

a second processor for processing the added signal of the image sensor for light metering of the object;

wherein the second processor for light metering processes the added signal obtained by adding signals of given pixels locating in a given area narrower than the whole imaging area of the image sensor, and upon completion of all the light metering with the second processor, all pixels are read out and processed with the first processor, thereby being recorded without resetting the image sensor.

50. (Currently Amended) A digital camera comprising:

an image sensor having a plurality of two-dimensionally arranged pixels capable of selectively reading out signals from desired pixels and capable of adding signals of at least two pixels prior to getting the output from the image sensor;

a first processor for processing outputs from individual pixels of the image sensor to form a picture image for recording of an object of the camera; and

a second processor for processing the added signal of the image sensor for light metering of the object;

wherein electric charge is accumulated on the pixels of the image sensor to generate the outputs, and the second processor includes a timer for determining a time length from a start of the accumulation of charge to a time when the added signal reaches a predetermined level, the light metering being in accordance with the time length, and upon

completion of all the light metering with the second processor, all pixels are read out and processed with the first processor, thereby being recorded without resetting the image sensor.

51. (Currently Amended) A digital camera comprising:

an image sensor with a plurality of color filters having a plurality of two-dimensionally arranged pixels capable of selectively reading out signals from desired pixels and capable of adding signals of two-dimensionally arranged at least three pixels prior to getting the outputs from the image sensor;

a processor for processing outputs from the individual pixels of the image sensor to form a picture image for recording of an object of the image; and

a white balance calculator for processing the added signals of the image sensor in accordance with all of a same kind of color filters, respectively, generated before outputting from the image sensor, wherein upon completion of the process with the white balance calculator, all pixels are read out and processed with the processor, thereby being recorded without resetting the image sensor.

52. (Currently Amended) A digital camera comprising:

an image sensor having a plurality of two-dimensionally arranged pixels capable of selectively reading out signals from desired pixels;

a processor for processing outputs from the pixels of the image sensor to form a picture image for recording of an object of the camera; and

a white balance calculator that reads out and processes signals once again from the pixels of the image sensor without resetting the signals of the image sensor, after completion of reading out from the image sensor for the process of the processor, signals read out from the pixels of the image sensor without resetting the signals of the image sensor which have been read out for the process of the processor.